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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,280	08/21/2001	Jonathan D. Chesnut	INVIT1300-1	8805

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Lisa A. Haile, J.D., Ph.D.  
GRAY CARY WARE & FREIDENRICH LLP  
4365 Executive Drive, Suite 1600  
San Diego, CA 92121

EXAMINER

SIEW, JEFFREY

ART UNIT PAPER NUMBER

1637

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

### Application No.

09/935,280

### Applicant(s)

CHESNUT ET AL.

### Examiner

Jeffrey Siew

### Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 and 56-64 is/are pending in the application.
- 4a) Of the above claim(s) 11, 12, 20, 33 and 56-64 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10, 13-19, 21-32, 34-40 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I in the reply filed on March 17, 2004 is acknowledged. The traversal is on the ground(s) that applicant canceled claims 41-55 pursuant to office action mailed June 4, 2003 which did not have a restriction requirement and subsequently will not be able to claim priority under 121. This is not found persuasive because 35 U.S.C. 121 does not prohibit filing of the claims under a 35 U.S.C. 121 under applicant's own accord and would receive benefit from priority under 121 provided the requirements are properly satisfied. The underlined portion of the 35 U.S.C. 121 section in the response filed March 17, 2004 refers to claims from a restriction in parent will receive priority provided the divisional application is filed before issuance of parent application. This section in any way does not prevent the applicant's claims in contention from receiving similar benefit provided 121 requirements are properly satisfied. Moreover, the response states that the previous examiner did not require a restriction and therefore there is no undue burden. According to MPEP 811, the requirement may be made at any time before final action in the case at the discretion of the examiner. Upon further review of the application, the requirement is deemed proper. Inventions I and II & III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the products may be made in a

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plurality of different recombinant methods including using ligation and adaptors. Examination would require undue burden to search the plurality of different methods of production.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions the cells are a different biological entity with complex systems and contain a plurality of different materials such as proteins, lipids and complex organelles than the simple nucleic acid products. Consequently, the requirement is still deemed proper and is therefore made FINAL.

Pending claims to be examined are 1-10,13-19,21-32,34-40.

This application contains claims 11,12,20,33 and 56-64 are drawn to an invention nonelected with traverse in the reply filed on 3/17/04 . A complete reply must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

## **SUMMARY**

2. Claims 1-10,13-19,21-32,34-40 are allowable. Concerning claims 1-10,13-19 & 34-40 there is no prior art that teach or suggest the method of generating of directionally linked recombinant nucleic acid comprising contacting a topoisomerase charged first double stranded nucleic acid comprising a first topoisomerase covalently bound at first end and first end further comprising a 5' overhang and second ds nucleic acid comprising a blunt end and blunt end

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comprises a nucleotide sequence complementary to first 5' overhang and the first topoisomerase covalently links 3' terminus at first end of the ds nucleic acid with the 5' terminus of first end of second ds strand. Concerning claims 21-32 there is no prior art that each or suggest the method of generating of directionally linked recombinant nucleic acid comprising contacting a first double strand nucleic acid with first end at 5' terminus a first 5' target sequence and at the 3' terminus a topoisomerase recognition site and second ds nucleic acid comprising a first blunt end comprising at the 5' terminus a nucleotide sequence complementary to 5' target sequence and allow topoisomerase activity to allow hybridization of first 5' target sequence. The closest prior art is Shuman (6,548,277) who teach topoisomerase bivalently linked DNA and binding to vector with 5' overhang. They do not teach or suggest the vector has a blunt end.

### CONCLUSION


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Siew who can be reached at 571-272-0787. The e-mail address is Jeffrey.Siew@uspto.gov. However, the office cannot guarantee security through the e-mail system nor should official papers be transmitted through this route. The examiner is on flex-time schedule and can best be reached on weekdays from 6:30 a.m. to 3 p.m. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached on (571)272-0782.

Any inquiry of a general nature, matching or filed papers or relating to the status of this application or proceeding should be directed to the Tracey Johnson for Art Unit 1637 whose telephone number is (571)272-0534.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The 1600 Tech Center FAX is (703)-872-9306.

  
JEFFREY SIEW  
PRIMARY EXAMINER

June 4, 2004